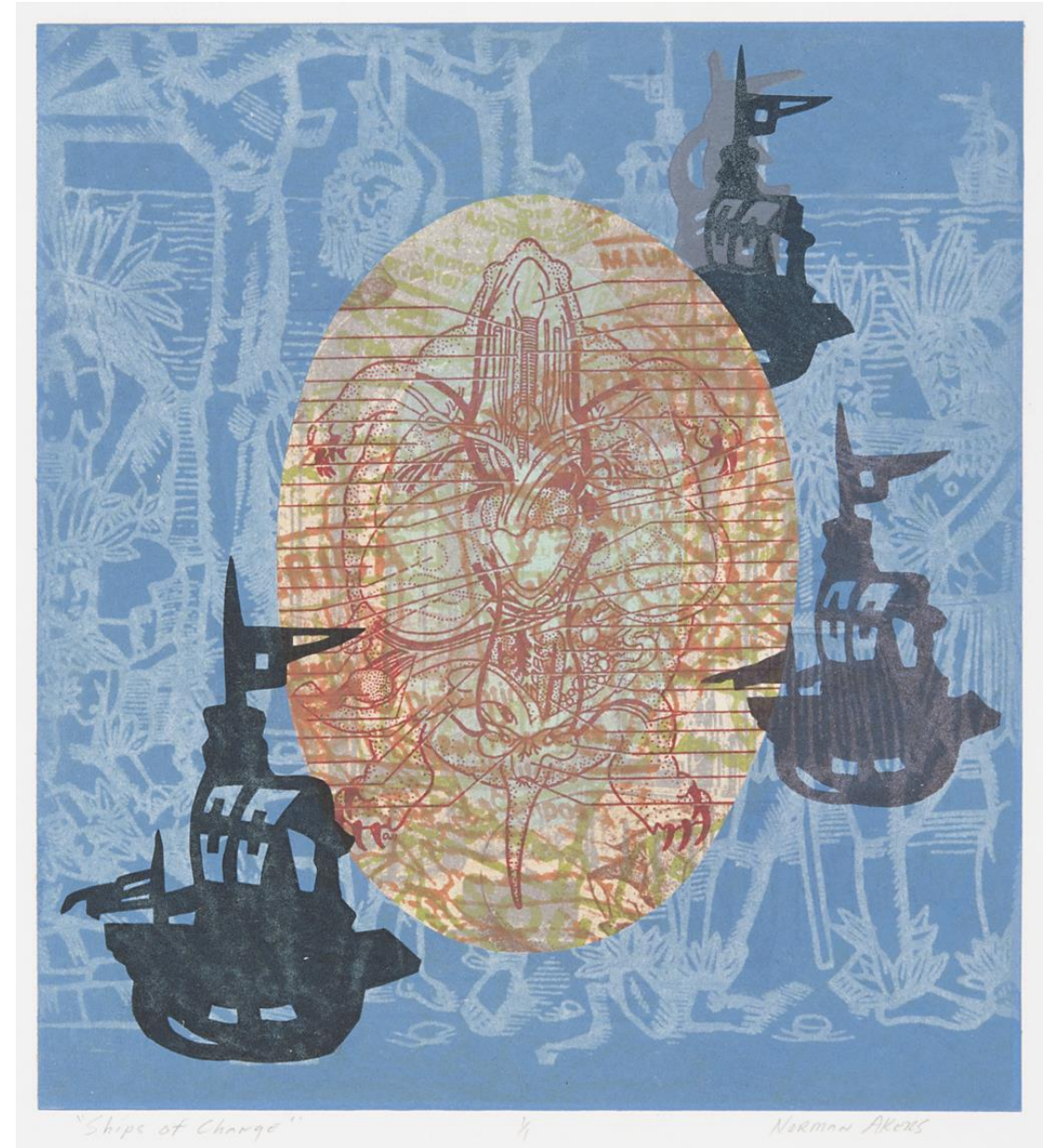


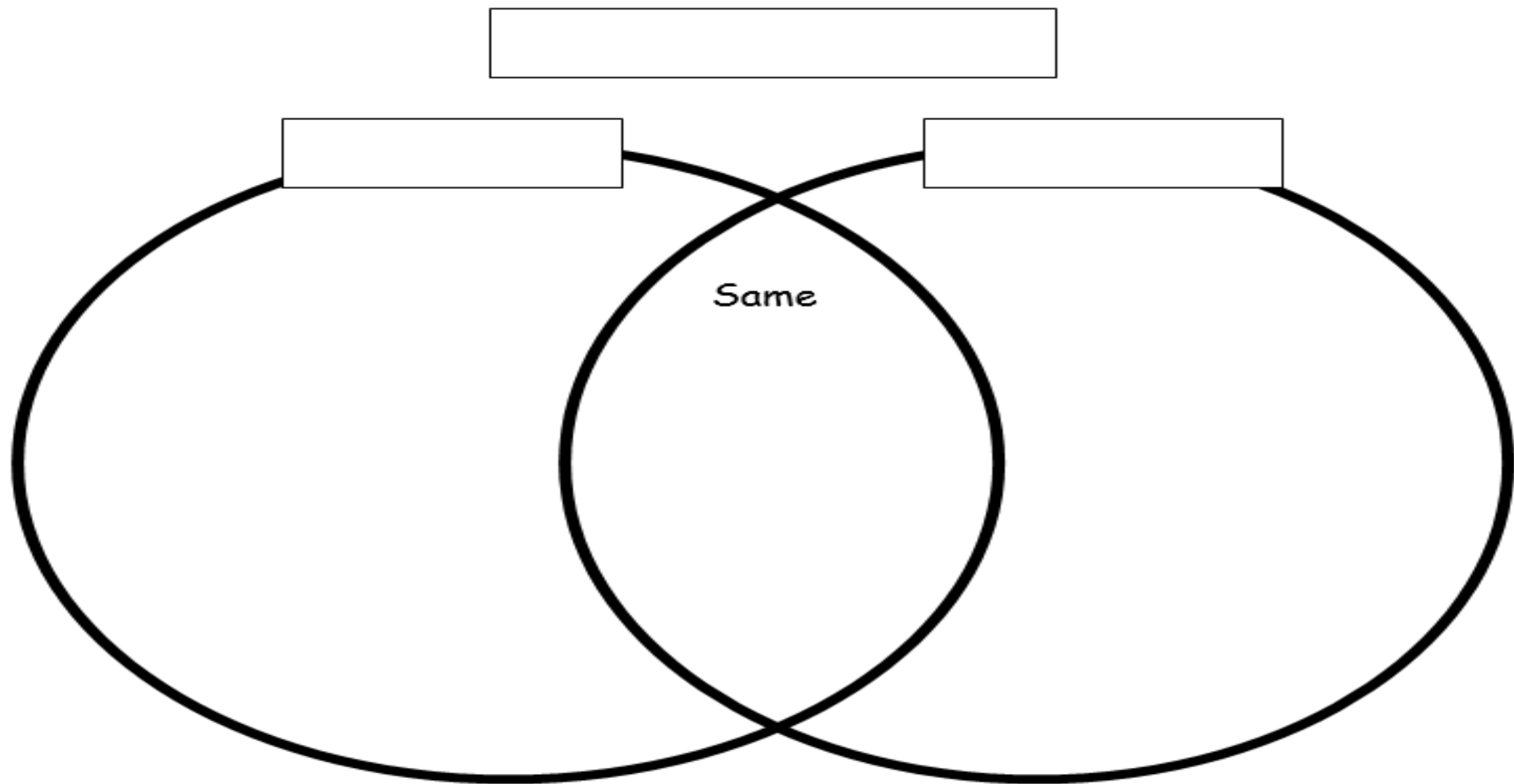
ARTSmart: Turtles



Compare and Contrast

Use the Venn Diagram that follows to list how these turtles are different and the same.







Mary Singer

Born 1936, Santa Clara Pueblo, New Mexico

Turtle, 1976

Black on black earthenware

Gift of Mary Cottom, 2014.438

Singer created this turtle (order *Testudines*) in the famous polished blackware pottery tradition of the Santa Clara Pueblo. The turtle in Southwest tribes such as the Hopi and Navajo represents water, a precious commodity in the region.

This turtle is about 6" in diameter. He has a Sun face on his shell.

Norman Akers (Osage Nation and Pawnee)

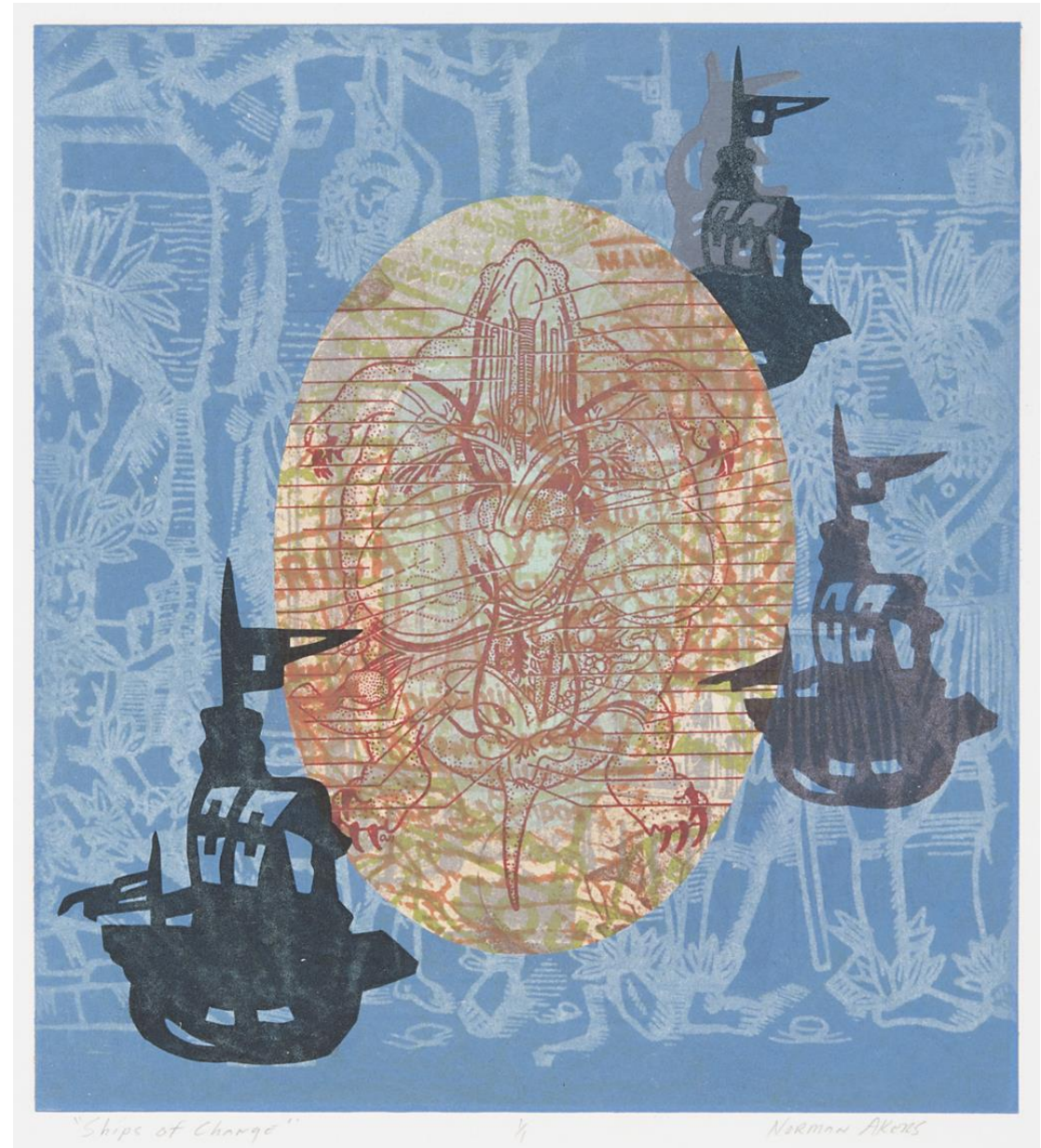
Born 1958, Fairfax, Oklahoma

Ships of Change, 2008

Monotype

Friends of the Beach Museum of Art Kansas Art Fund, 2012.148

Native American creation stories tell of how the earth was formed by piling soil on the back of a great sea turtle. Many indigenous tribes still refer to North America as Turtle Island. Akers' art is often collage-like and filled with symbolic imagery that is sometimes connected to Native beliefs and sometimes open to interpretation. In this case, the turtle might be understood as the original "ship," seen alongside early European sailing vessels.



Turtle and Tortoise Facts

Turtle, tortoise, and terrapin are all names for the hard-shelled, egg-laying reptiles in the taxonomic order *Chelonia*.

Turtle is often used to refer to sea turtles that rarely leave the ocean. They are omnivores. They have front flippers and webbed back feet and a streamline shell. They are air breathing so have to surface to get oxygen.

The word tortoise is used to refer to turtles that spend most of their time on land, eating shrubs and grasses. Unlike their aquatic relatives, tortoises don't have webbed feet, since they don't spend much, if any, time in the water. They also have domed shell.

Terrapins are turtles that spend time both on land and in brackish, swampy water. The word "terrapin" comes from an Algonquian Indian word meaning "a little turtle." They have webbed feet with claws. Their shells are similar to a tortoise but less domed.



A sampling of turtle types

alligator snapping turtle
(*Macrochelys*, or *Macrochelys*, *temminckii*)



eastern mud turtle
(*Kinosternon subrubrum*)



eastern box turtle
(*Terrapene carolina*)



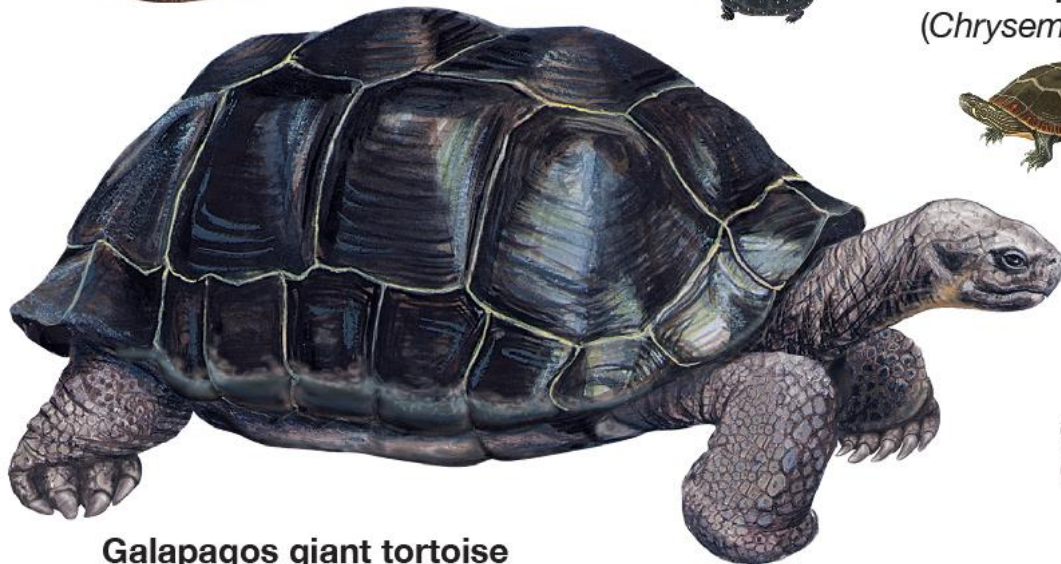
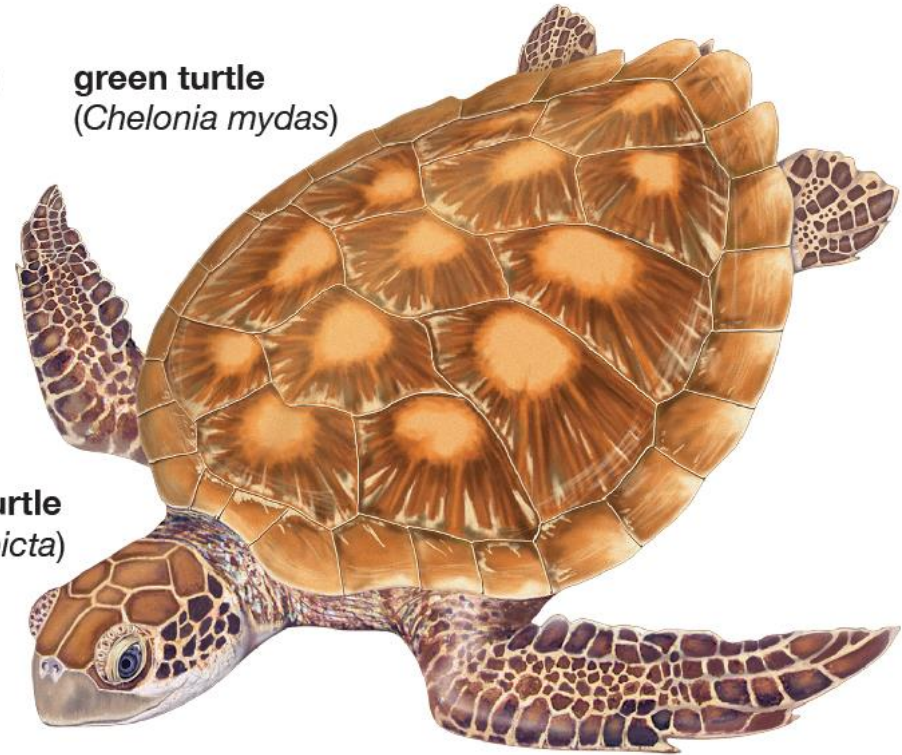
spotted turtle
(*Clemmys guttata*)



eastern painted turtle
(*Chrysemys picta picta*)



green turtle
(*Chelonia mydas*)



Galapagos giant tortoise
(*Geochelone nigra*)

common map turtle
(*Graptemys geographica*)



Blanding's turtle
(*Emydoidea blandingii*)



spiny softshell turtle
(*Apalone spinifera*)



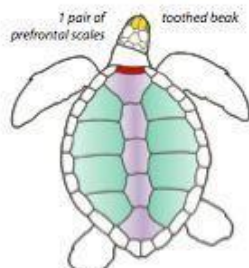
30 cm
12 inches

Turtle Identification Chart

PREFRONTAL
NUCHAL

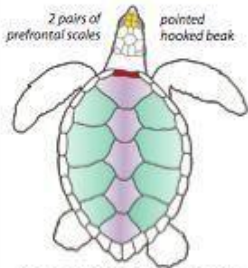
COSTAL
VERTEBRAL

Green Turtle



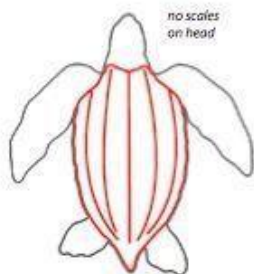
Carapace: 4 pairs of costal scutes, the first pair is not in contact with the nuchal scute.

Hawksbill Turtle



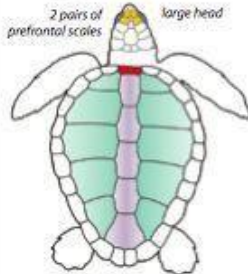
Carapace: 4 pairs of costal scutes, the first pair is not in contact with the nuchal scute; carapace scutes are generally overlapping but this trait fades with age.

Leatherback Turtle



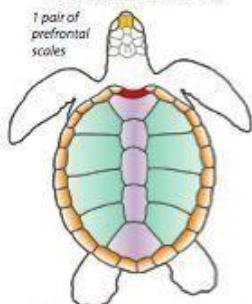
Back: (pseudocarapace): no scales (simply covered by a kind of leather) and divided by seven longitudinal ridges.

Loggerhead Turtle



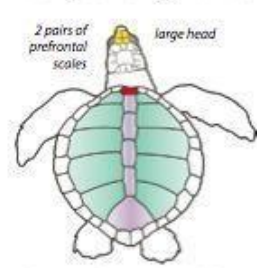
Carapace: 5 pairs of costal scutes, the first pair is in contact with the nuchal scute.

Flatback Turtle



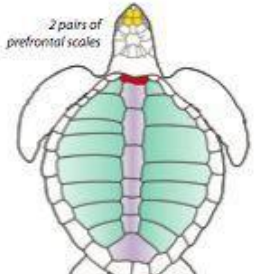
Carapace: 4 pairs of costal scutes, the first pair is not in contact with the nuchal scute; slightly upturned lateral margins.

Kemp's Ridley Turtle

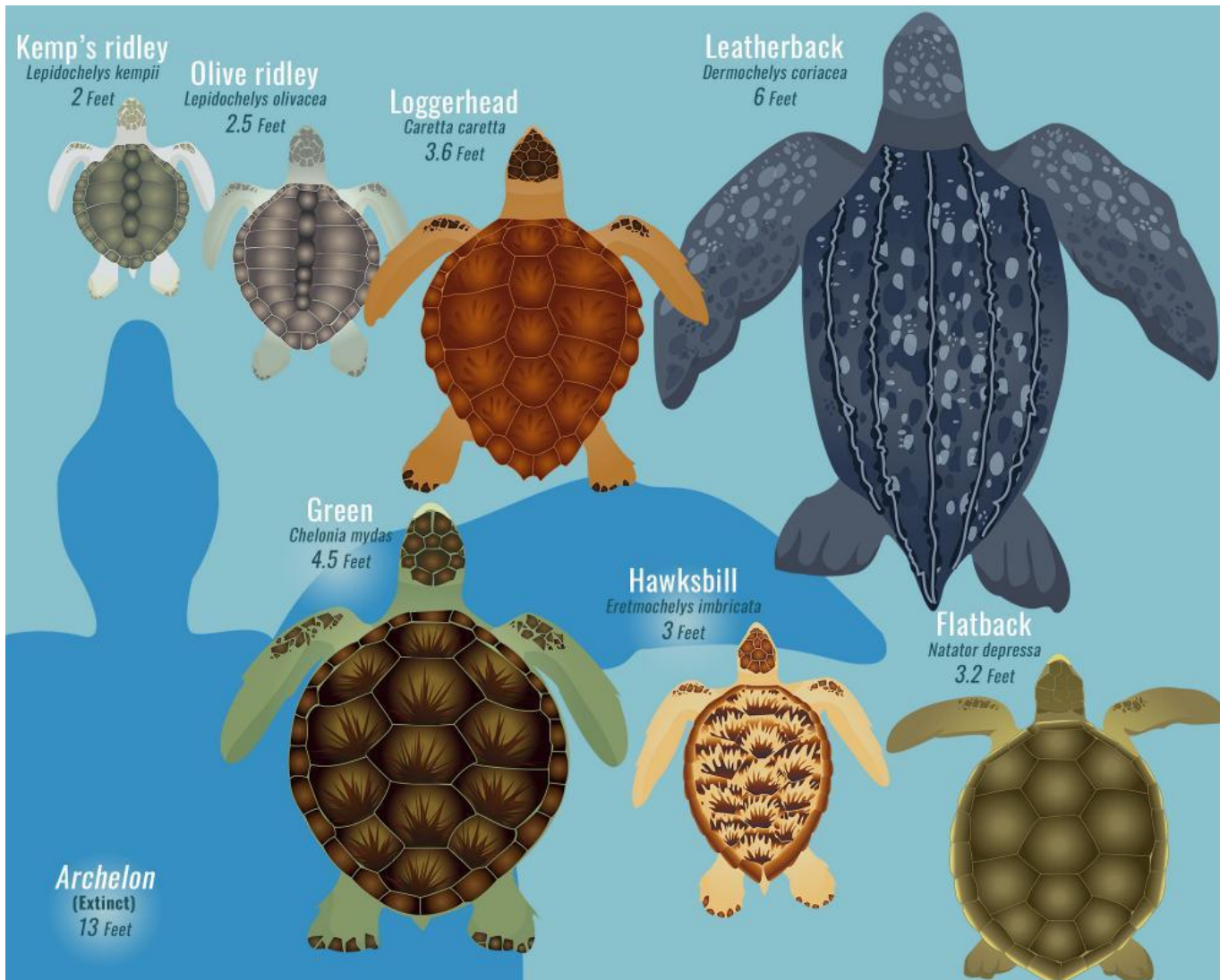


Carapace: almost circular in adults; 5 pairs of costal scutes, the first pair is in contact with the nuchal scute.

Olive Ridley Turtle



Carapace: 5 to 9 pairs of costal scutes (not necessarily the same number on either side), the first pair is in contact with the nuchal scute.



TYPES OF TORTOISES



Indian star tortoise
Geochelone elegans



Texas tortoise
Gopherus berlandieri



Leopard tortoise
Stigmochelys pardalis



Radiated tortoise
Geochelone radiata



Greek spur-thighed tortoise
Testudo graeca



Asian forest tortoise
Manouria emys



Spider tortoise
Pyxis arachnoides



African spurred tortoise
Centrochelys sulcata



Geometric tortoise
Psammobates geometricus



Galápagos giant tortoise
Geochelone elephantopus



American Desert tortoise
Gopherus agassizii



Aldabra giant tortoise
Aldabrachelys gigantea
























Russian tortoise
Testudo horsfieldii

The Galápagos tortoise complex is a set of 15 species (12 extant and 2-3 extinct) of very large tortoises in the genus *Chelonoidis*. They are the largest living species of tortoise, with some modern Galápagos tortoises weighing up to 919 lb.

With lifespans in the wild of over 100 years, they are one of the longest-lived vertebrates. Captive Galapagos tortoises can live up to 177 years. Spanish explorers, who discovered the islands in the 16th century, named them after the Spanish galápagos, meaning "tortoise".

The Galápagos tortoises are native to seven of the Galápagos Islands. Shell size and shape vary between populations. On islands with humid highlands, the tortoises are larger, with domed shells and short necks; on islands with dry lowlands, the tortoises are smaller, with "saddleback" shells and long necks. Charles Darwin's observations of these differences on the second voyage of the Beagle in 1835, contributed to the development of his theory of evolution.

TURTLES of NORTH AMERICA

 DIAMONDBACK TERRAPIN <i>Centrochelys sulcata</i>	 BARBOUR'S MAP TURTLE <i>Graptemys barbouri</i>	 CHICKEN TURTLE <i>Emaschelys reticulata</i>
 POND SLIDER <i>Trachemys scripta</i>	 SPOTTED TURTLE <i>Clemmys guttata</i>	 ALLIGATOR SNAPPING TURTLE <i>Macrochelys temminckii</i>
 NORTHERN MAP TURTLE <i>Graptemys geographica</i>	 WOOD TURTLE <i>Glyptemys insculpta</i>	 ARIZONA MUD TURTLE <i>Kinosternon arizonense</i>
 ESCAMBIA MAP TURTLE <i>Graptemys escambia</i>	 NORTHERN RED-BELLIED COOTER <i>Pseudemys rubriventris</i>	 BLANDING'S TURTLE <i>Emydoidea blandingii</i>
 WESTERN POND TURTLE <i>Actinemys marmorata</i>	 COMMON SNAPPING TURTLE <i>Chelydra serpentina</i>	 MESO-AMERICAN SLIDER <i>Trachemys venusta</i>
 PAINTED TURTLE <i>Chrysemys picta</i>	 SMOOTH SOFTSHELL TURTLE <i>Apalone mutica</i>	 OUACHITA MAP TURTLE <i>Graptemys ouachitensis</i>
 RAZOR-BACKED MUSK TURTLE <i>Stemmatopus carolinus</i>	 COASTAL PLAINS COOTER <i>Pseudemys floridana</i>	 BOG TURTLE <i>Glyptemys muhlenbergii</i>

BOX TURTLES of NORTH AMERICA



**EASTERN
BOX TURTLE**
Terrapene carolina carolina



**DESERT BOX
TURTLE**
Terrapene ornata lutescens



**ORNATE BOX
TURTLE**
Terrapene ornata ornata



**GULF COAST
BOX TURTLE**
Terrapene carolina major



**FLORIDA BOX
TURTLE**
Terrapene carolina bauri



**THREE-TOED
BOX TURTLE**
Terrapene carolina triunguis

Ornate Box Turtle - state reptile of Kansas



The ornate box turtle (*Terrapene ornata ornata*) is one of only two terrestrial species of turtles native to the Great Plains of the United States. The ornate box turtle is a relatively small turtle. Males and females generally look alike but males are often smaller; there is color variation with yellow lines from the center of the shell to the edges through gray, red-brown, or black coloration. Besides the size, males can be distinguished from females in several ways; a large curved inner claw on the back feet, a cloacal opening that is farther back in males, a longer and thicker tail, and reddish color on the legs and occasionally on the jaw, and red eyes.

The ornate box turtle, like all reptiles, is ectothermic, which means that its body temperature is affected by the environmental temperature and the environmental temperature affects its movement.

The ornate box turtle is an omnivore, with no particular dietary preferences; as an opportunistic feeder, it eats whatever is available in any given location or season - grasses, berries, insects and other invertebrates (caterpillars, grasshoppers, beetles, earthworms), fruits, vegetables, and carrion.

Their eggs take about 60 days to hatch. Ornate box turtles live 32-37 years.

What does a turtle look like inside it's shell?

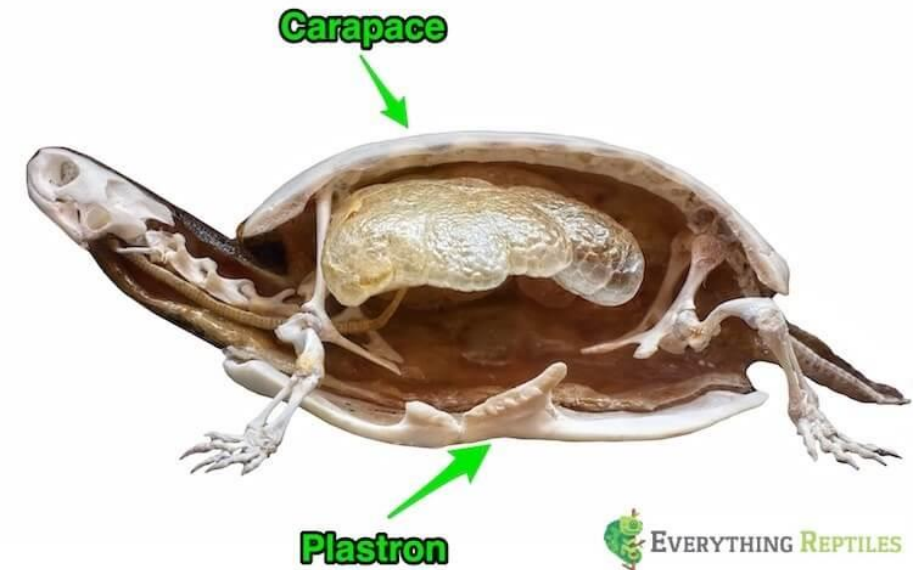
https://www.youtube.com/watch?v=V17T_5jRE2M



A turtle's shell is not just its home. It is also a part of their body. It protects them from predators and the environment. Scientists originally thought that a turtle shell was an extension of their backbone and ribs. However, it was discovered to be much more than that. It not only incorporates their skeleton, but it is also an external bony structure.

The spinal column and rib cage are built into the carapace. The plastron protects important organs like the lungs and heart. The shell is an important part of a turtle's anatomy which includes their rib cage, spinal cord, and nerve endings. It is made up of bone, nerves and blood vessels. A turtle can feel if you touch them on the shell because there are nerve endings in it.

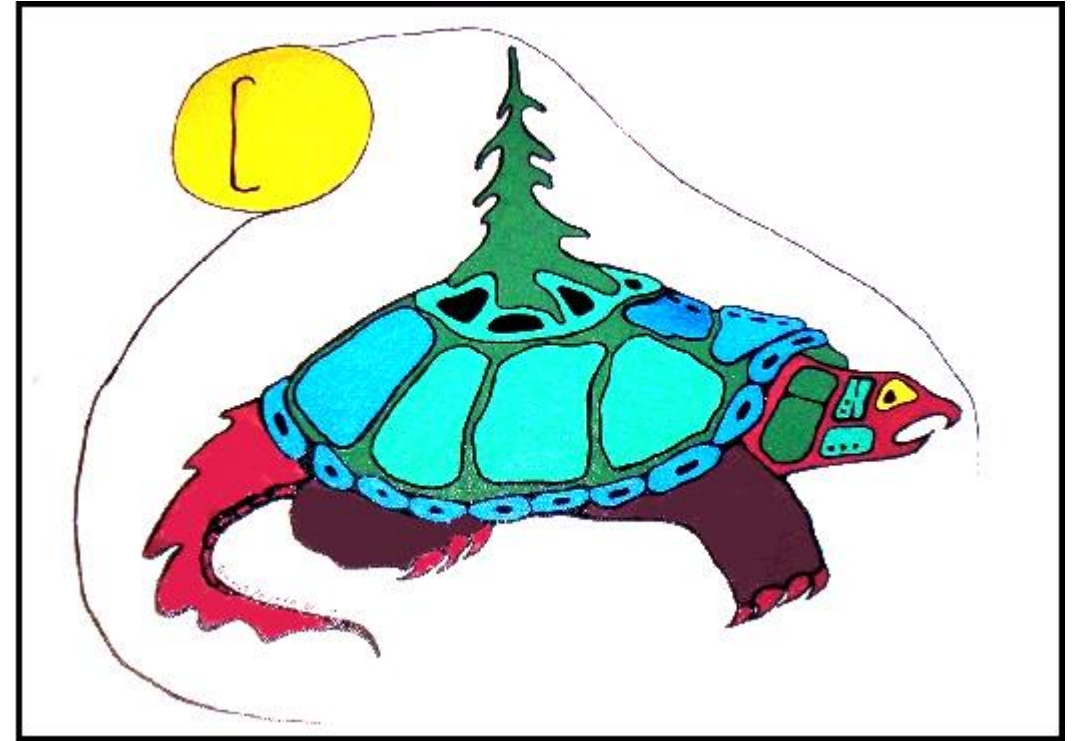
Nerves and blood vessels all connect the shell to the turtle's body. The bones fused to the shell are already a part of their body. There is no barrier between the turtle's bones and its internal organs. **A turtle can not leave or live without its shell.**



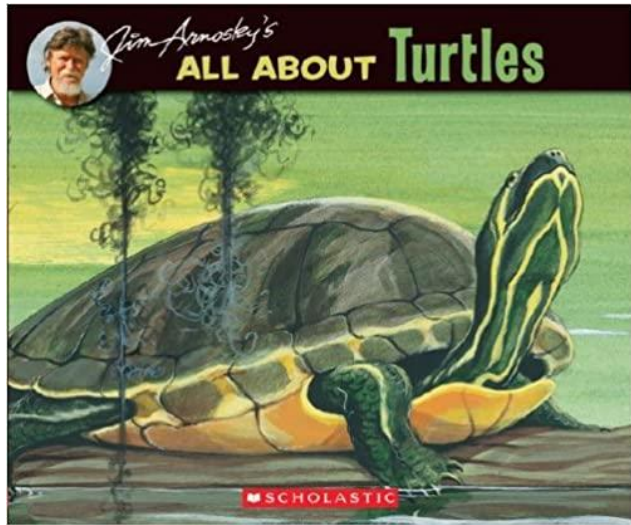
Turtle Island

'Turtle Island' is the name for the lands now known as North and Central America. It is a name used by some Indigenous peoples who believe their land was formed on the back of a turtle.

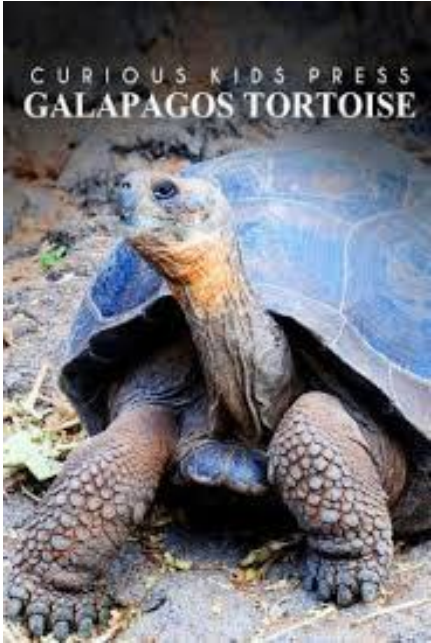
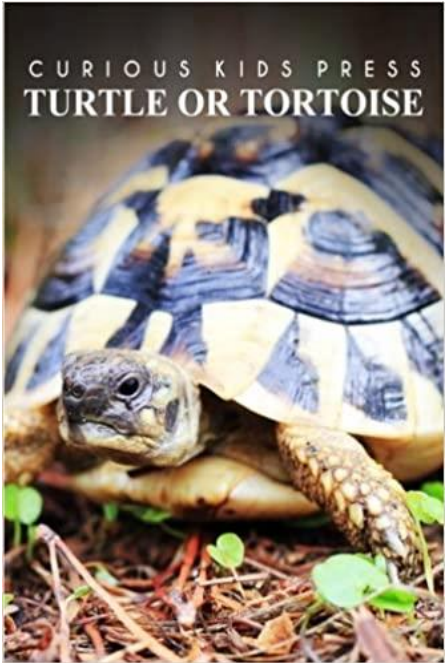
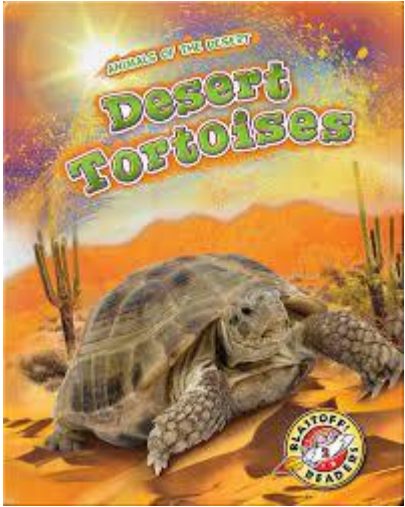
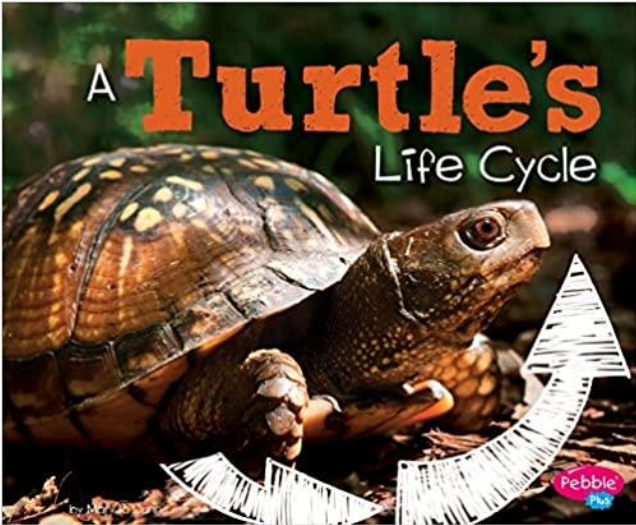
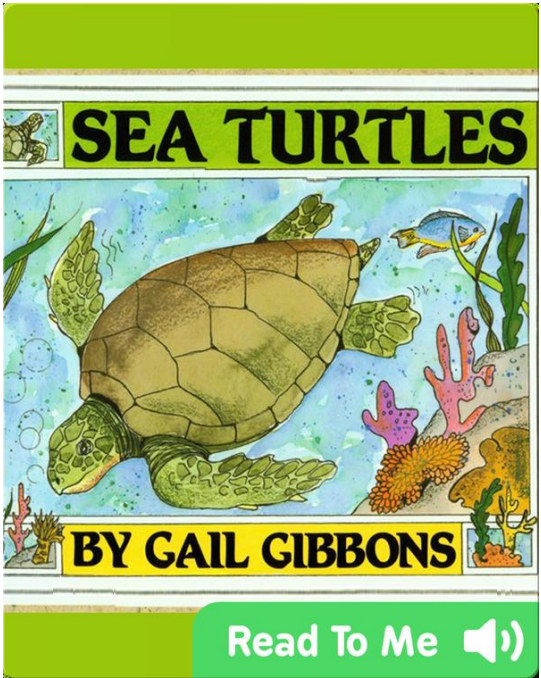
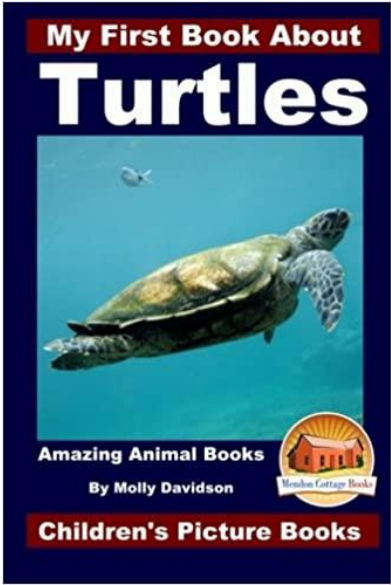
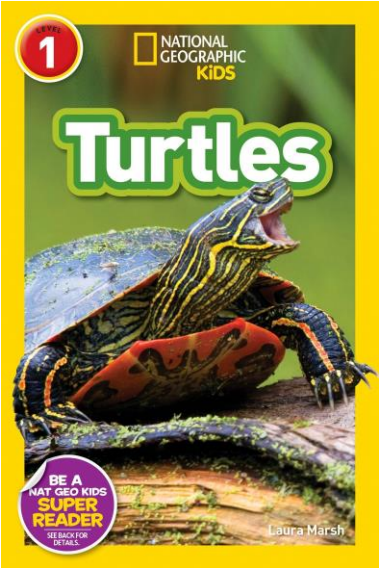
Though regional versions exist, the core of this Anishinaabe creation story relates to a time when the planet was covered in water. Different animals all tried to swim to the bottom of the ocean to bring back dirt to create land but they all failed. A muskrat was the last animal to attempt the task. The muskrat swam deep and remained under water for a long time. Eventually the muskrat resurfaced with some wet soil in its paws. Sadly the swim took the muskrat's life, but Nanabush (a supernatural being who has the power to create life) took the soil and placed it on the back of a turtle. With this act, land began to form and so became *Turtle Island*.



Turtle Island,
Todd Jamieson of the Oneida Nation
India ink and acrylic on paper



Learn more about turtles



Additional Turtles from the BMA collection



Delores Lewis Garcia (Acoma Sky Pueblo)

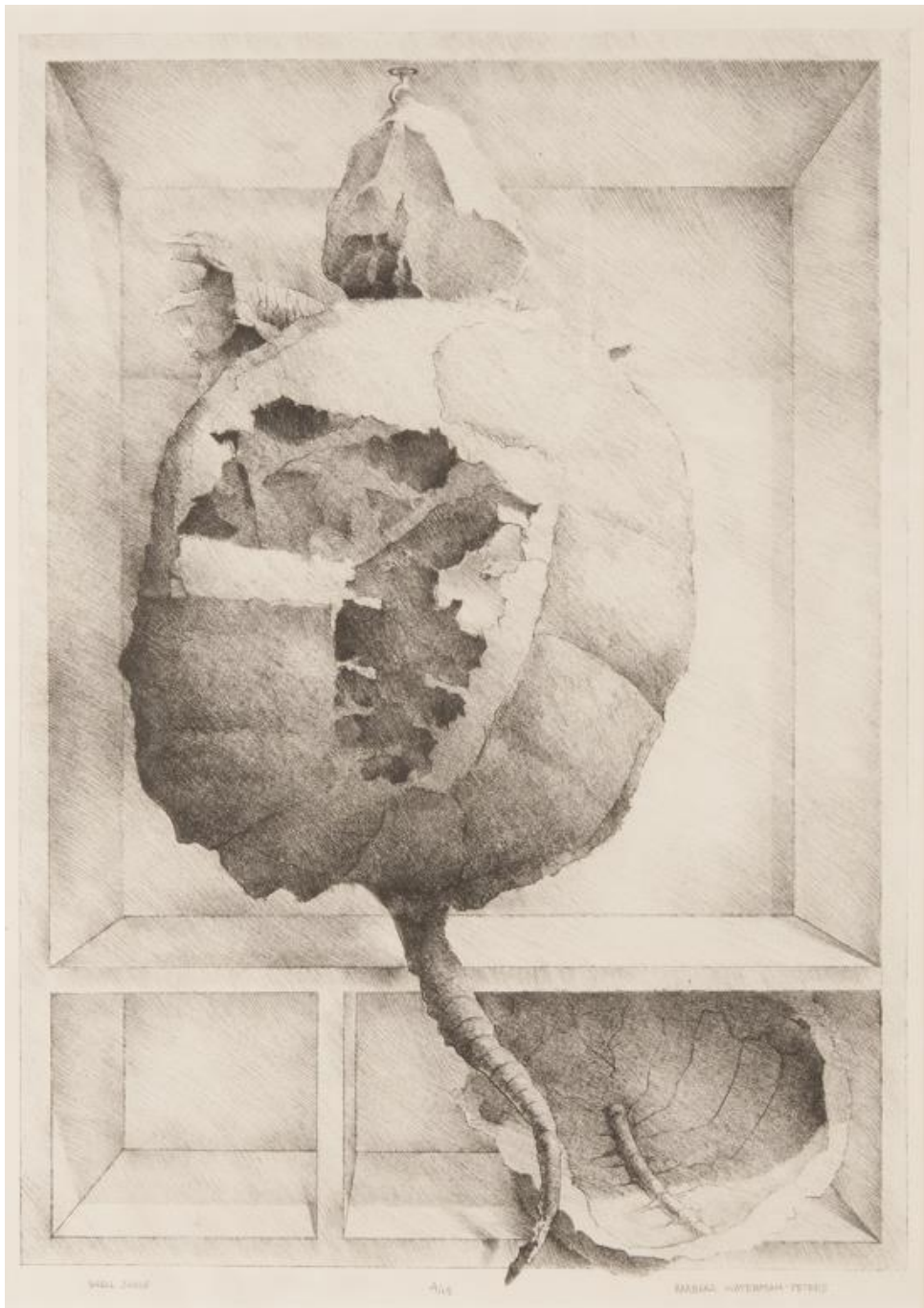
Turtle figurine, 1974

Earthenware with pigment

KSU, Marianna Kistler Beach Museum of Art, gift of the Estate of Lolafaye

Coyne, 2015.43





Barbara Waterman-Peters

Shell Shelf, 1998, printed 1999

Lithograph (aluminum plate) on paper

KSU, Marianna Kistler Beach Museum of Art, gift of Larry
Peters and Barbara Waterman-Peters, 2016.161

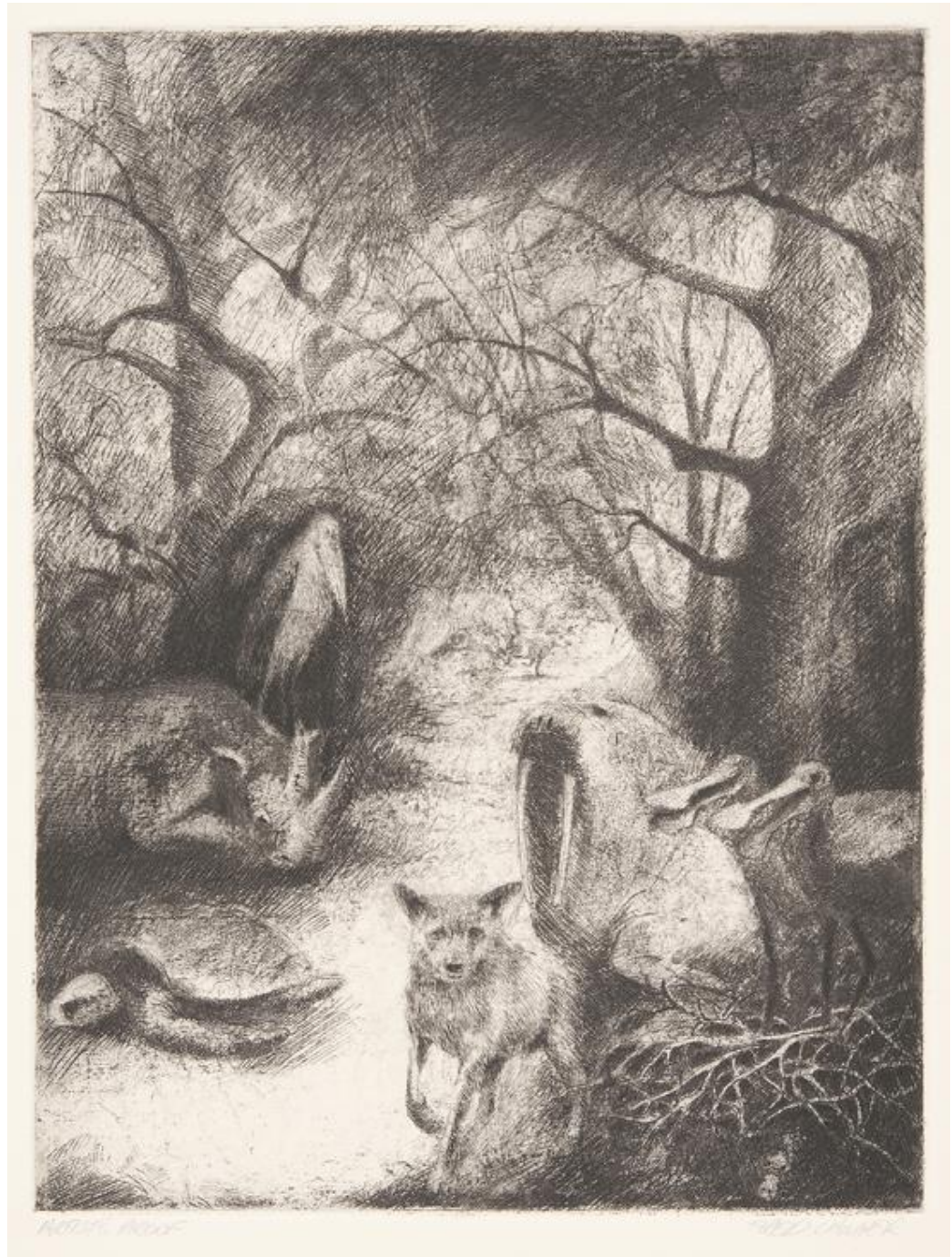
Can you tell what type of turtle is featured in this print?

Fred Lawyer

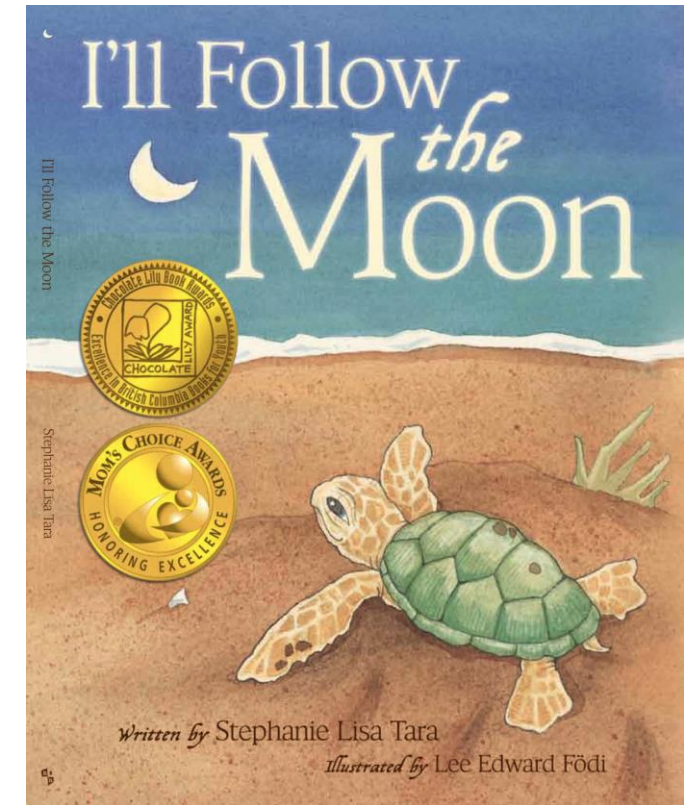
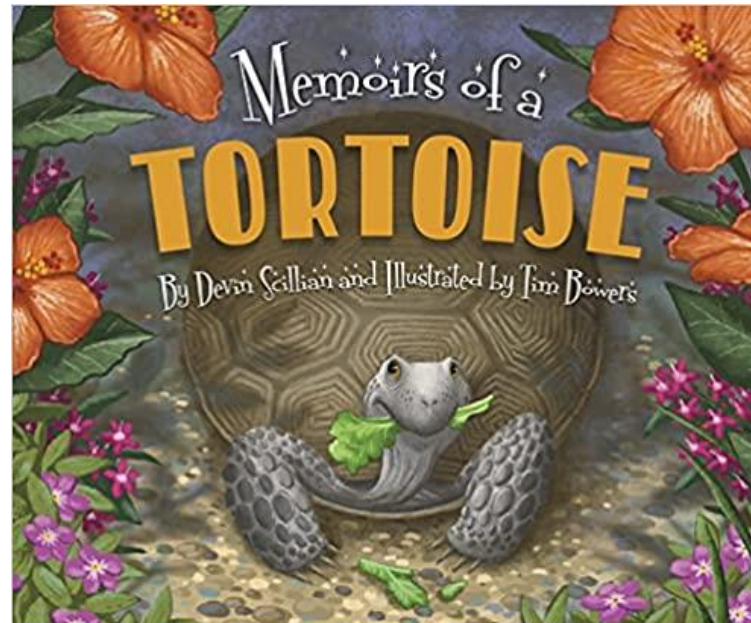
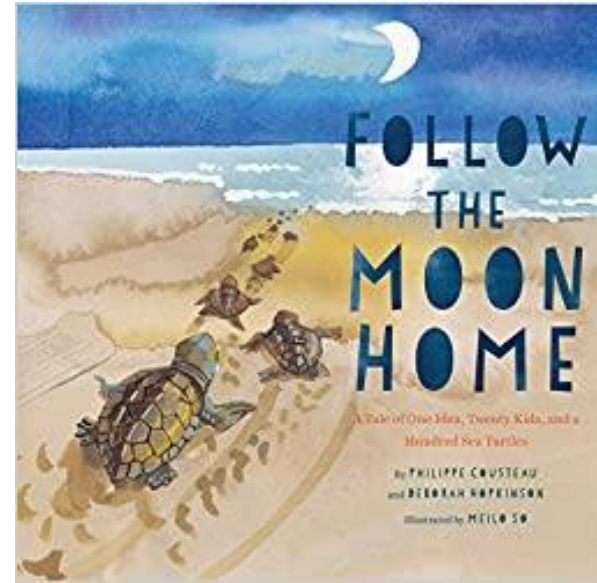
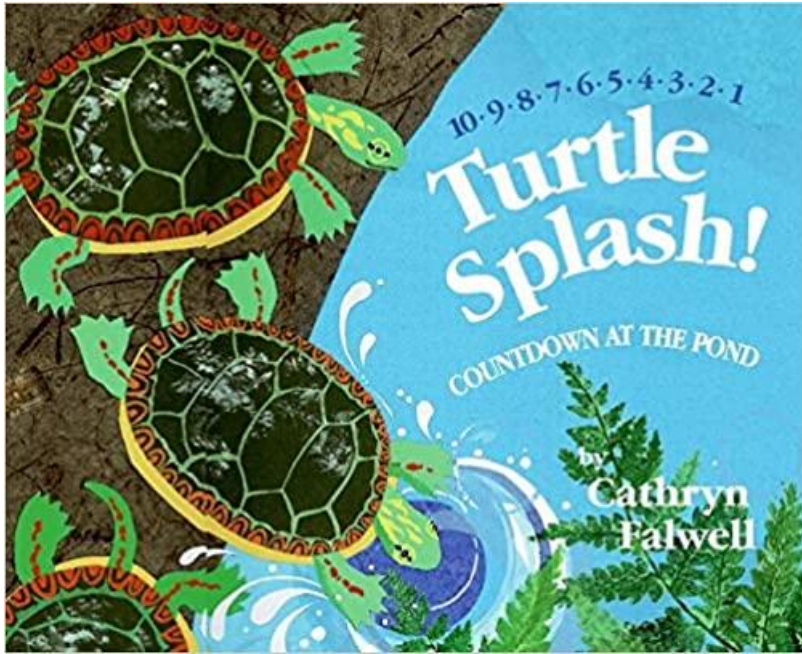
Title unknown (wildlife scene), late 20th century

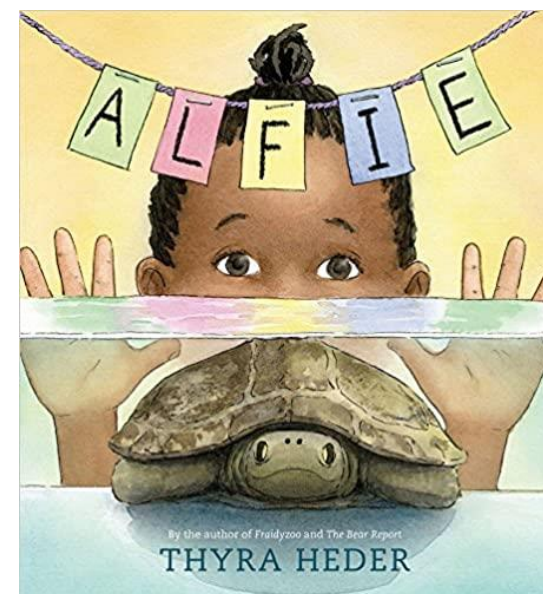
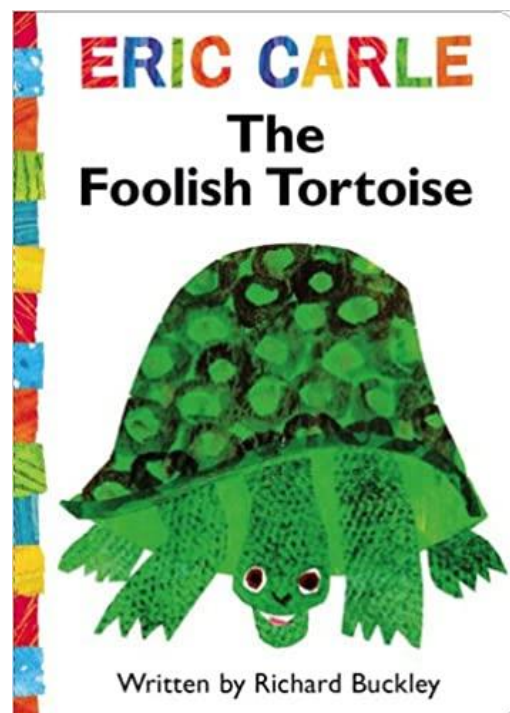
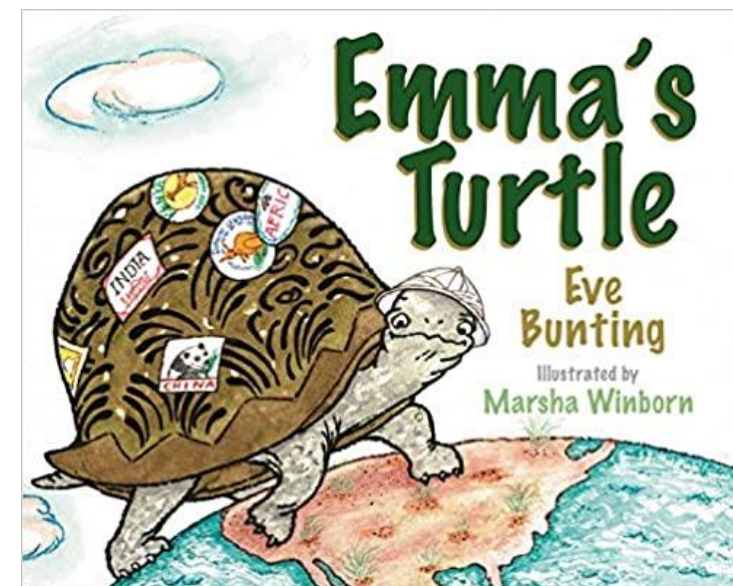
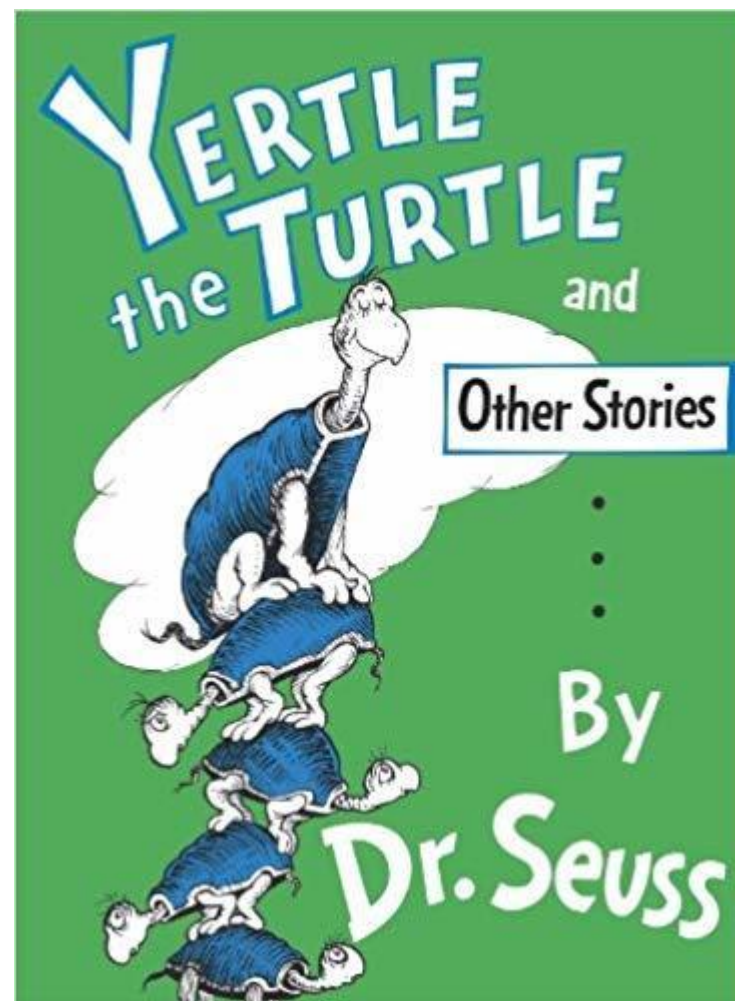
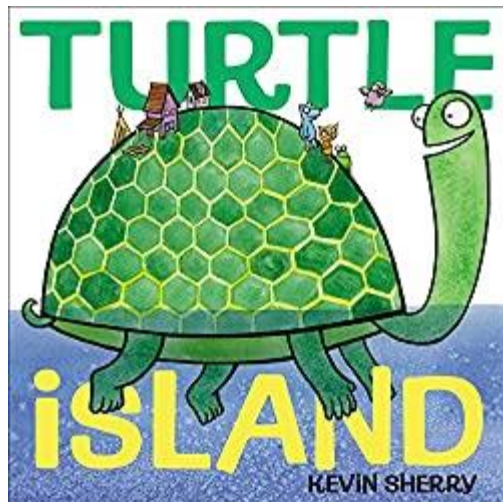
Etching on paper

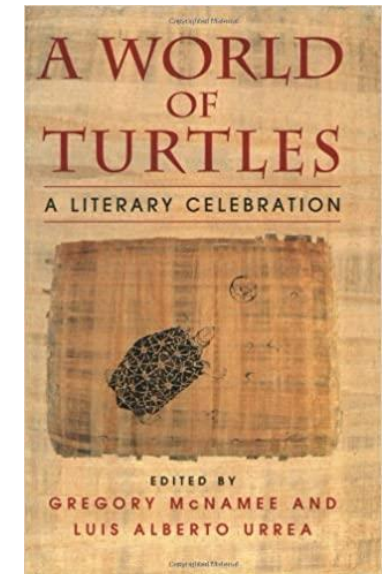
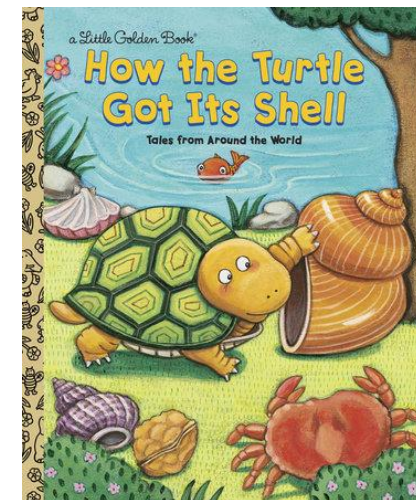
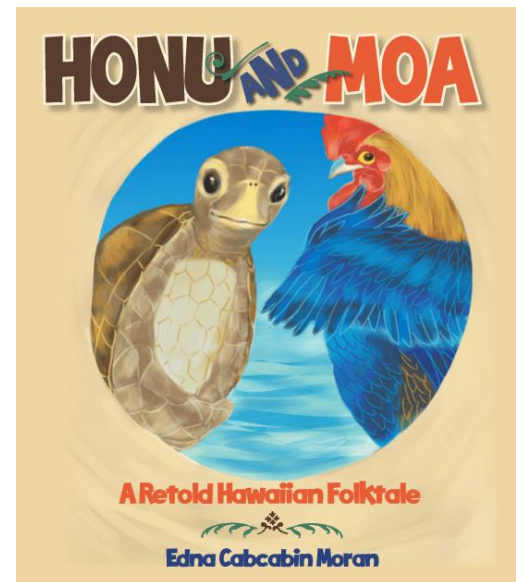
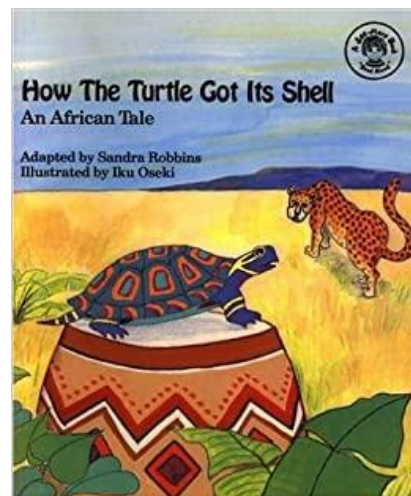
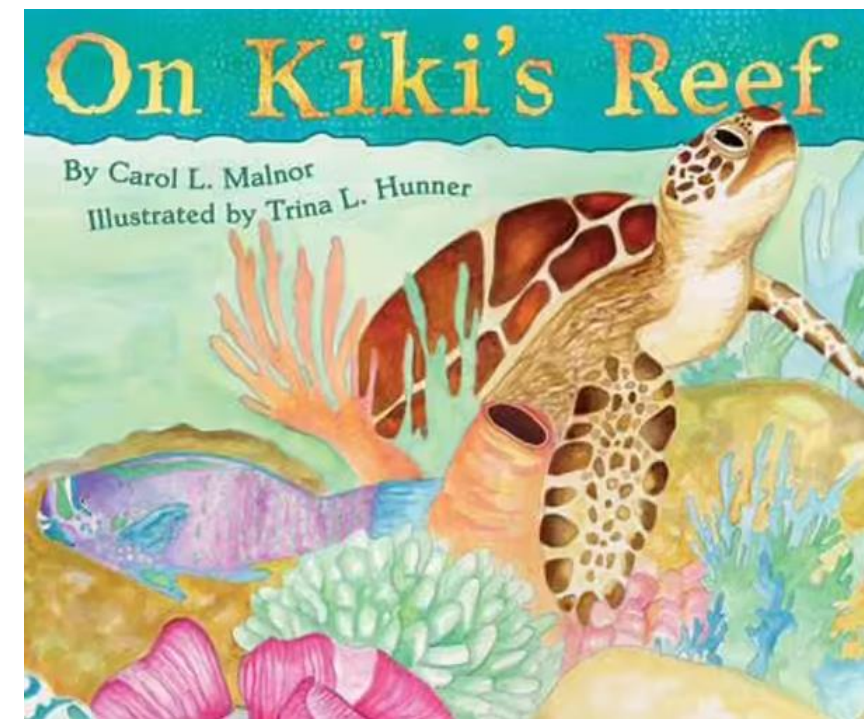
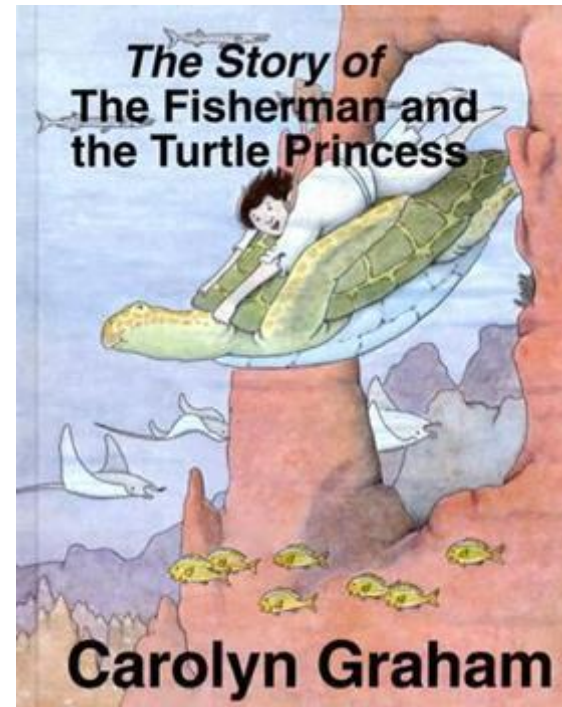
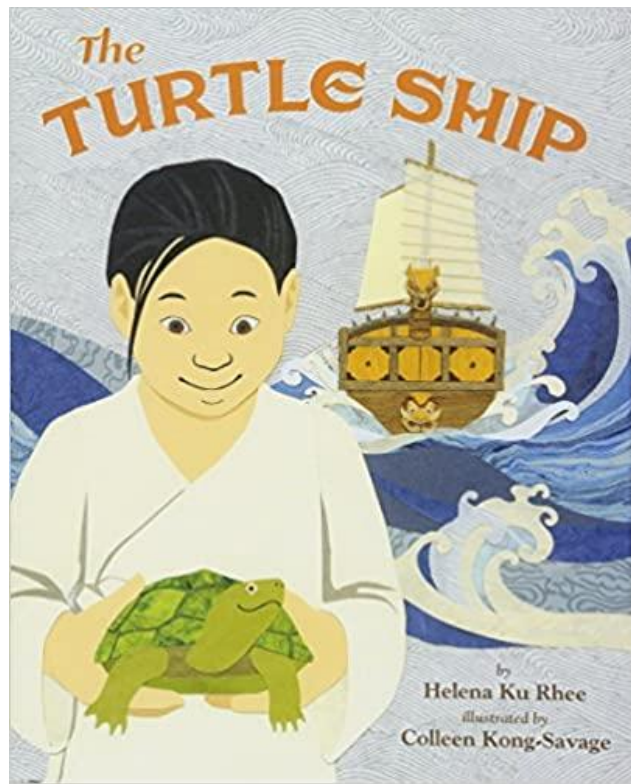
KSU, Marianna Kistler Beach Museum of Art, 2004.127

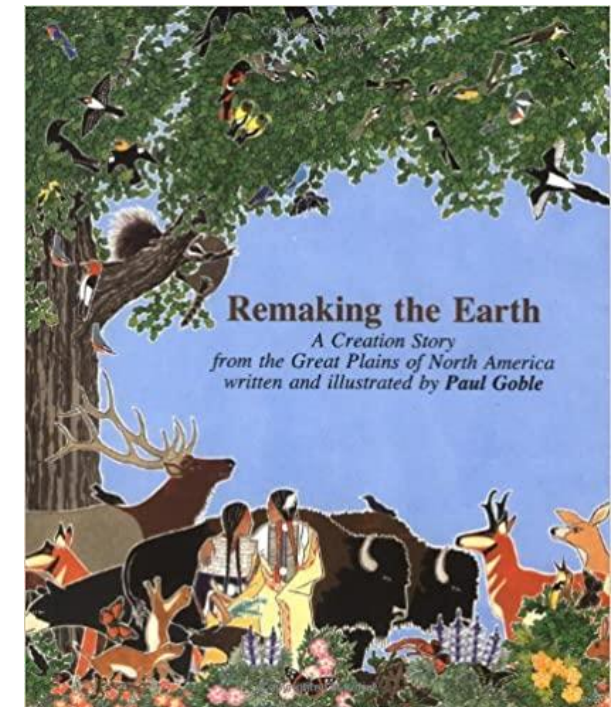
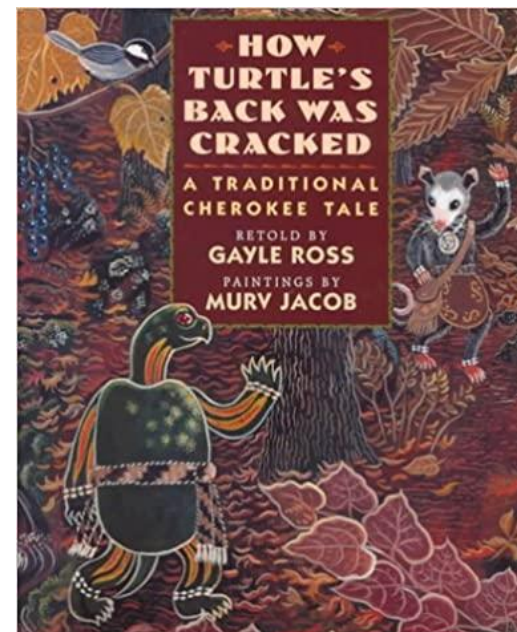
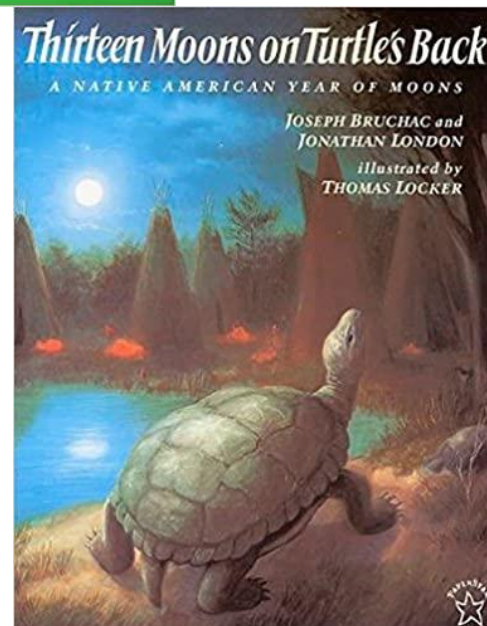
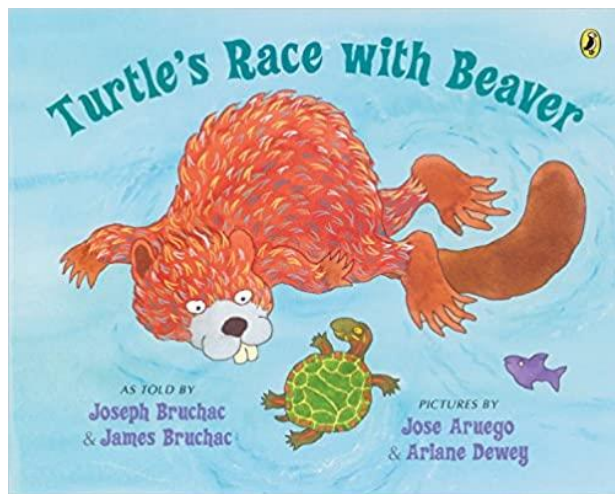
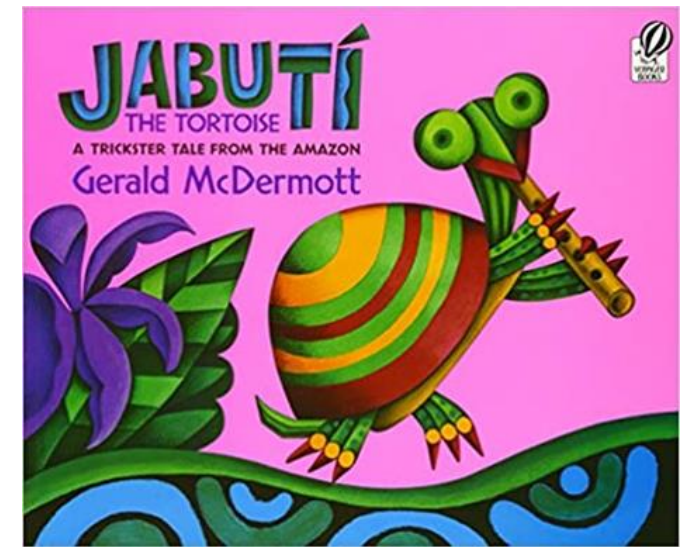
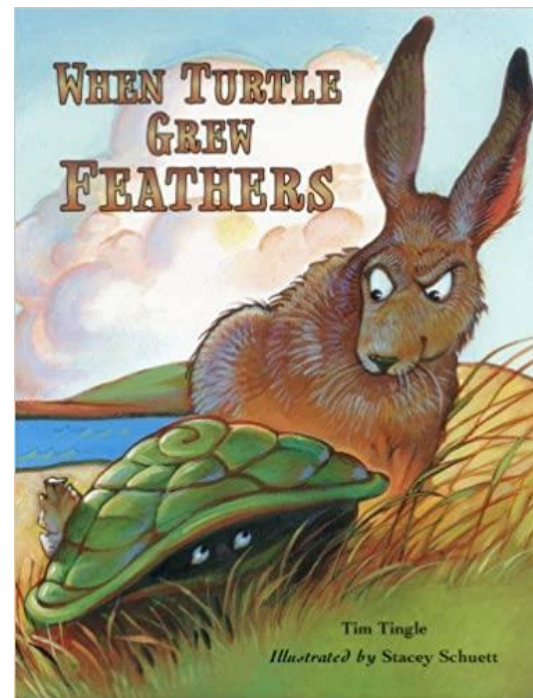
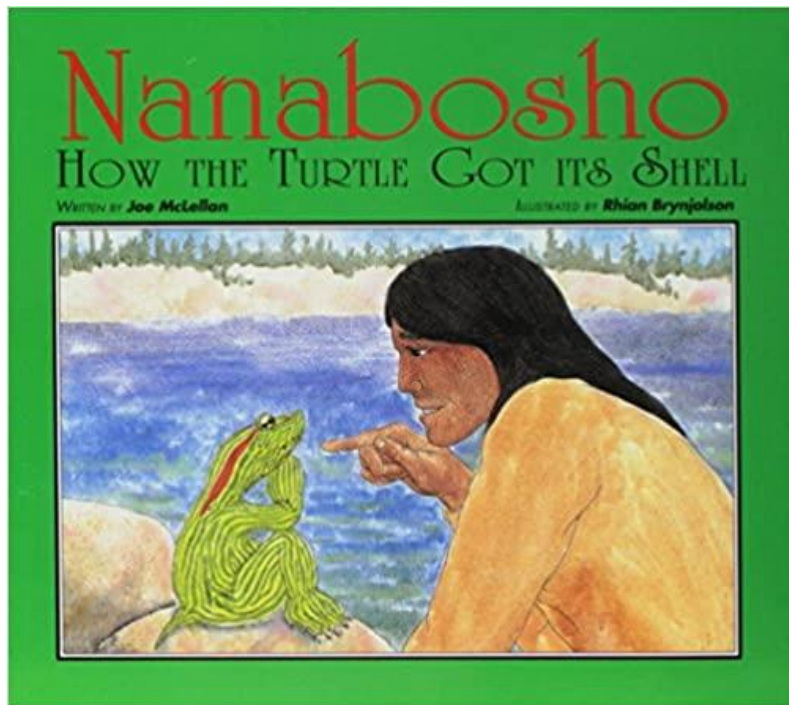


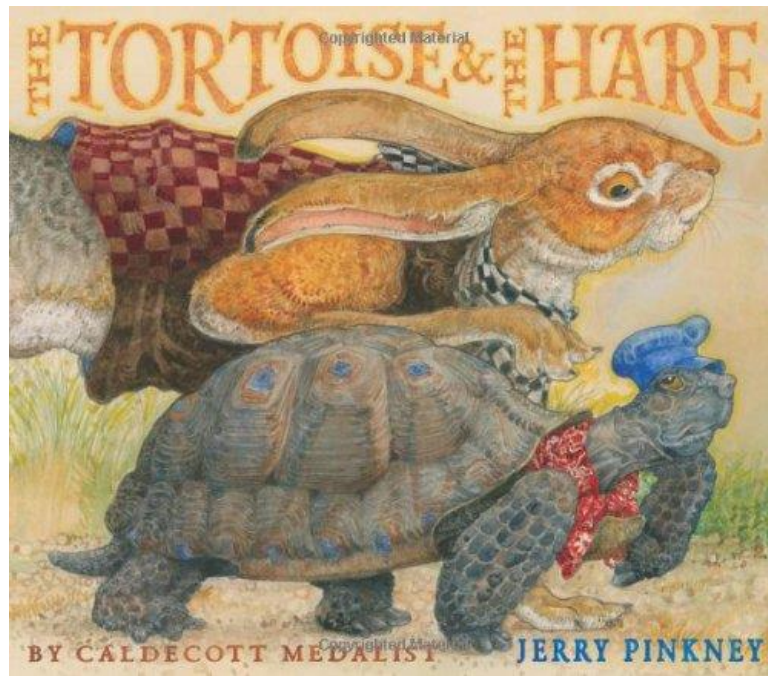
Picture Books





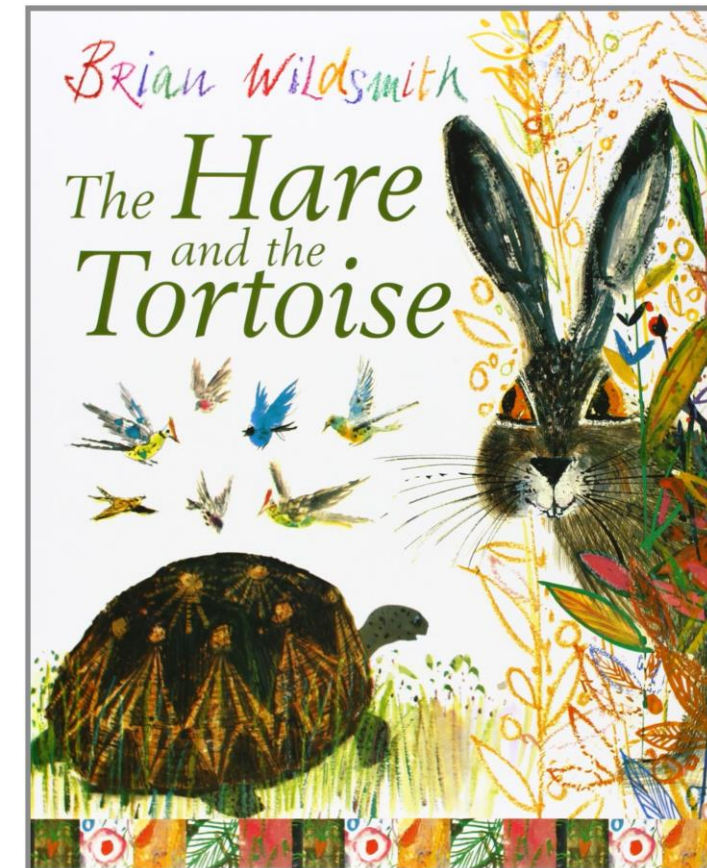
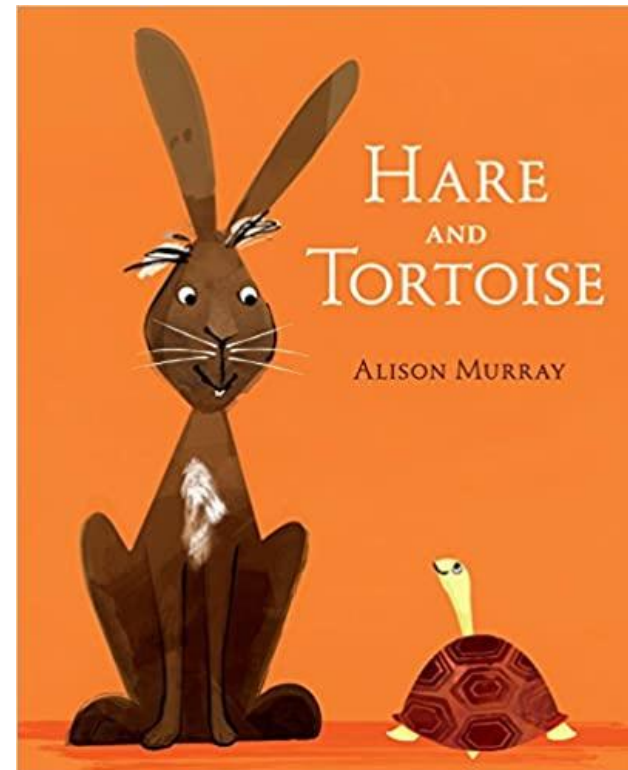
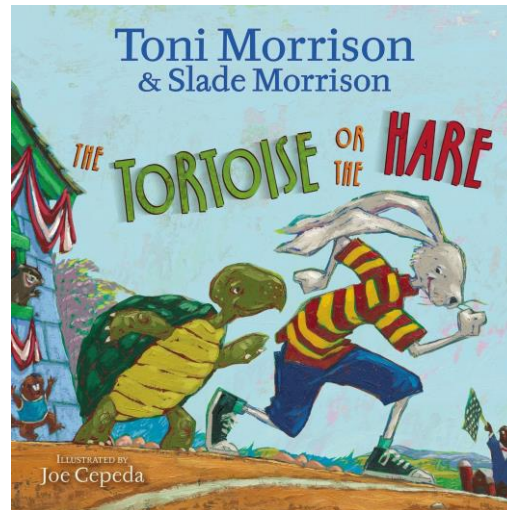






Fables, or the *Aesopica*, is a collection of fables credited to Aesop, a slave and storyteller believed to have lived in ancient Greece between 620 and 564 BCE. *The Tortoise and the Hare* is one of the most famous of these fables.

<https://www.youtube.com/watch?v=a6M2mwhThXQ>



Art Projects

Delores Lewis Garcia (Acoma Sky Pueblo)
Turtle figurine, 1974
Earthenware with pigment
KSU, Marianna Kistler Beach Museum of Art, gift of the Estate of
Lolafaye Coyne, 2015.43



The clay turtle featured earlier in the week provides a base for all sorts of shell designs from painted to incised to stamped. Two good clay choices are Crayola's Model Magic and Air Dry clays. But you can easily make your own clay:

- 1 cup cornstarch
- 1 cup white craft glue
- 1 tablespoon white vinegar or lemon juice as a preservative
- 1 tablespoon mineral or vegetable oil which creates a smooth silky texture

Cook over medium heat. The mixture will change from a soft paste to a consistency of mashed potatoes. Make sure to cook it till it pulls away from the pan. Turn off the heat.

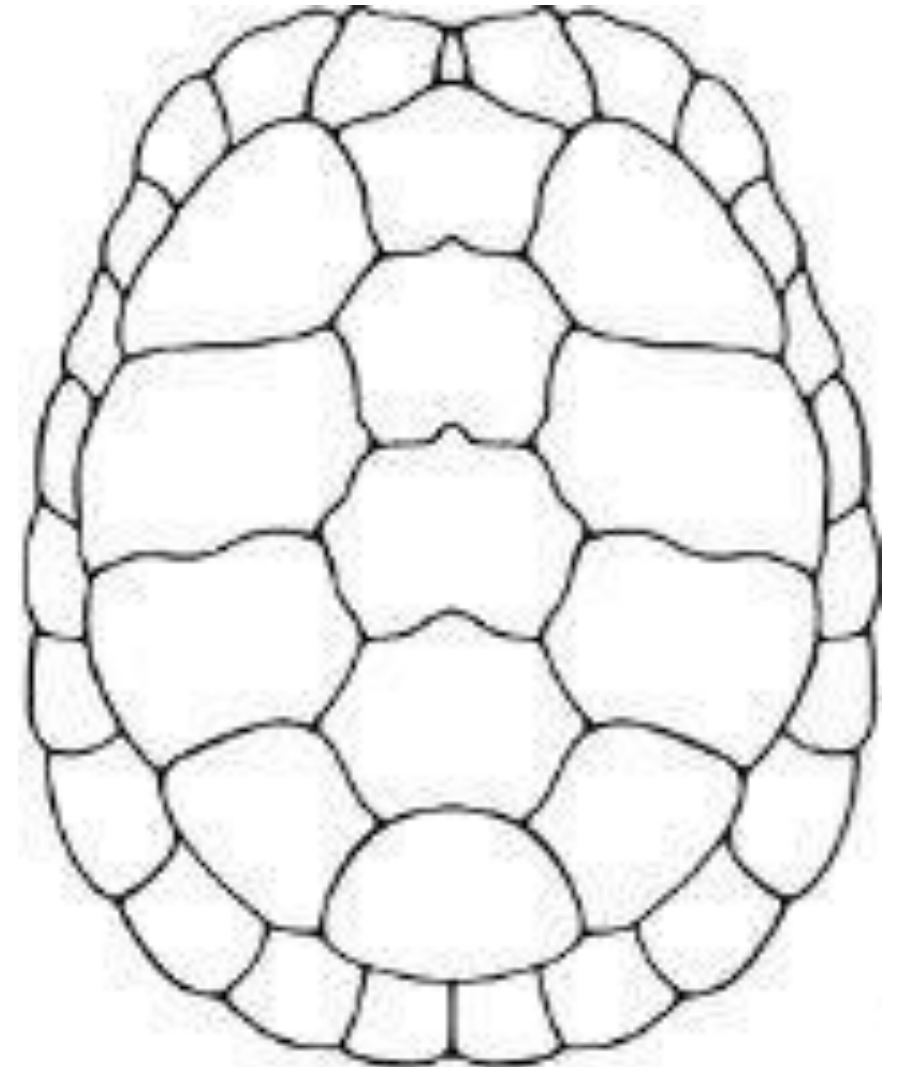
IMPORTANT tip:

If you under-cook the baking soda clay dough or use too much water, the dough will be sticky and prone to cracking!



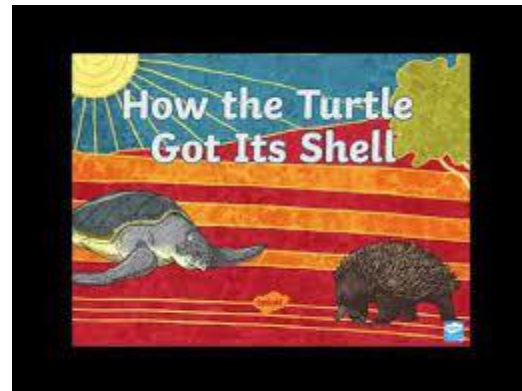
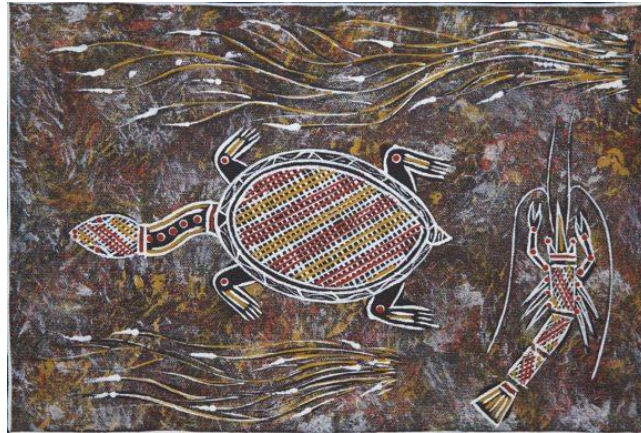
Nature has created beautiful box turtle patterns.
You can create your own.

NEVER, EVER
PAINT ON A
REAL
TURTLE'S
SHELL!



Turtle artworks are common from Aboriginal artists from the northern areas of Australia. Turtles are a food source for Indigenous communities and therefore appear as totems and in Dreamtime stories and Creation myths. Indigenous people respect the food resources that sustain them and they celebrate the turtle in rituals that aim to increase the bounty of the species.

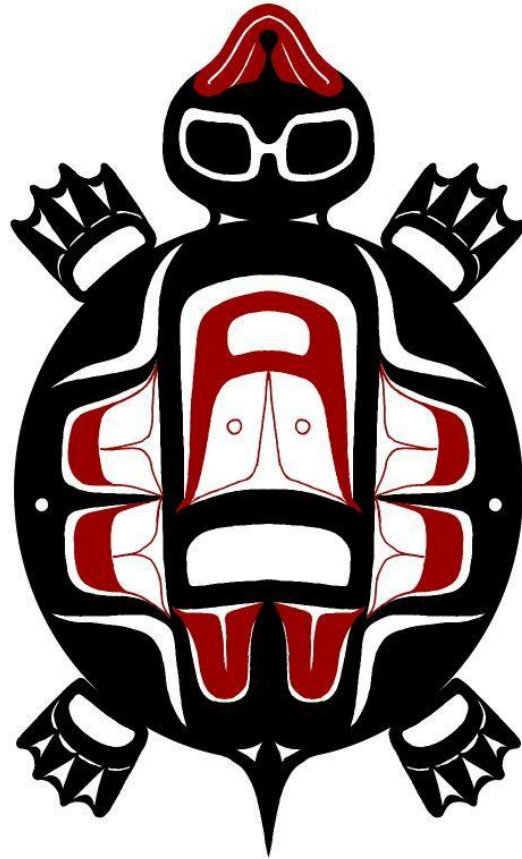
Think about what you could use to make your dots – a pencil eraser? What else could you use?



How the Turtle Got its Shell – Aboriginal tale

<https://www.youtube.com/watch?v=EOQZ2Gg1P4M>

Tlingit, Haida and Inuit artists also feature turtles. Northwest Indian tribes often associate animals like turtles with the names of clans, and they are sometimes featured on Totem Poles.





Collage with paper or fabric

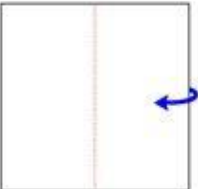
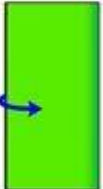
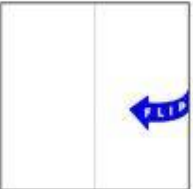

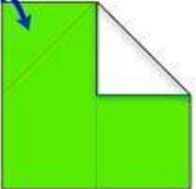
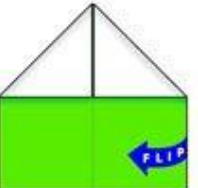
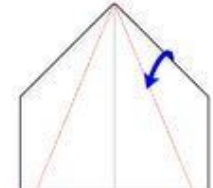
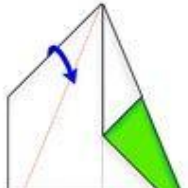
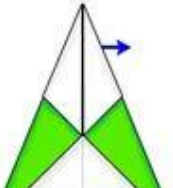
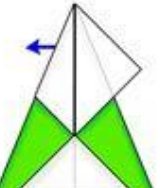
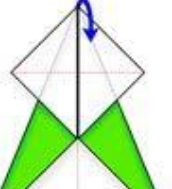
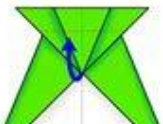
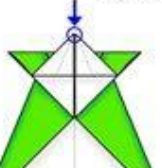








If you can't get to the Beach, you can buy seashells at a craft store



how to Make an Origami Turtle

Origami

- 1 Fold a square paper in half 
- 2 Open the fold 
- 3 Flip the paper 
- 4 Fold along the imaginary dotted line on the right half 
- 5 Do the same with the left half 
- 6 Flip the whole paper 
- 7 Note the red dotted line and fold along it 
- 8 Do the same on the left side 
- 9 Open up the fold in the back 
- 10 Do the same for the other side 
- 11 Fold down the middle, along the dotted line 
- 12 Fold again, along the red dotted line 
- 13 Make a small flip at the top, see the arrow 
- 14 Fold the right lower part along the dotted line 
- 15 Fold the left part, both tips meeting at the center 
- 16 Follow the arrow and dotted line to fold the left flap 
- 17 Do the same for the right flap 
- 18 See the circled arrows, round those corners a little 
- 19 Flip the whole paper 
- 20 Your turtle is ready 